

WHAT IS CLAIMED IS:

1. A valve for a brake control actuator comprising:
a rod operable between respective operating conditions to selectively allow passage of brake fluid through the valve;
a ball affixed at one end of the rod, the ball including a sealing section that upon engagement against a ball-receiving seat in the valve blocks passage to brake fluid therethrough, the ball further including a mounting section integral with the sealing section, the mounting section configured to provide a reduced footprint relative to an spheroidal footprint and enable a strong mechanical joint between the mounting section and the rod.
2. The valve of claim 1 wherein the mounting section comprises a pin and the rod includes a bore configured to receive the pin.
3. The valve of claim 1 wherein the mounting section comprises a bore and the rod includes a pin configured to engage the bore.
4. The valve of claim 1 wherein the mounting section comprises a cylindrical section circumferentially defining a midsection of the ball.
5. The valve of claim 1 wherein the cylindrical section is bounded at opposite axial ends thereof by corresponding angled surfaces.
6. The valve of claim 1 wherein the mounting section comprises a generally V-shaped notch.
7. The valve of claim 1 wherein the mounting section comprises a hyperboloid section defining a midsection of the ball.

8. A method for arranging a valve for a brake control actuator, the valve including a rod operable between respective operating conditions to selectively allow passage of brake fluid through the valve, the method comprising:

5 configuring a ball affixable at one end of the rod, the ball being configured to include a sealing section, and a mounting section integral with the sealing section;

configuring the sealing section so that upon engagement against a ball-receiving seat, the sealing section blocks passage to brake fluid therethrough;

10 configuring the mounting section to provide a reduced footprint relative to an spheroidal footprint while enabling a strong mechanical joint between the mounting section and the rod;

configuring the end of the rod to correspond with the mounting section of the ball; and

15 affixing the ball to the end of the rod.

9. The method of claim 8 wherein the mounting section is configured as a pin and the rod includes a bore configured to receive the pin.

20 10. The method of claim 8 wherein the mounting section is configured to define a bore and the rod includes a pin configured to engage the bore.

25 11. The method of claim 8 wherein the mounting section is configured as a cylindrical section circumferentially defining a midsection of the ball.

12. The method of claim 8 wherein the cylindrical section is bounded at opposite axial ends thereof by corresponding angled surfaces.

30 13. The method of claim 8 wherein the mounting section is configured as a generally V-shaped notch.

14. The method of claim 8 wherein the mounting section comprises a hyperboloid section defining a midsection of the ball.